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**FISHERIES**

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# 12.0 Overview of Shark Fisheries

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# HMS Sharks of Importance to the SWFSC / SWR

- Managed Species
  - Shortfin Mako
  - Blue
  - Common thresher
- Ecosystem Component Species
  - Pelagic and Bigeye threshers
- Prohibited Species
  - White
  - Basking
  - Megamouth

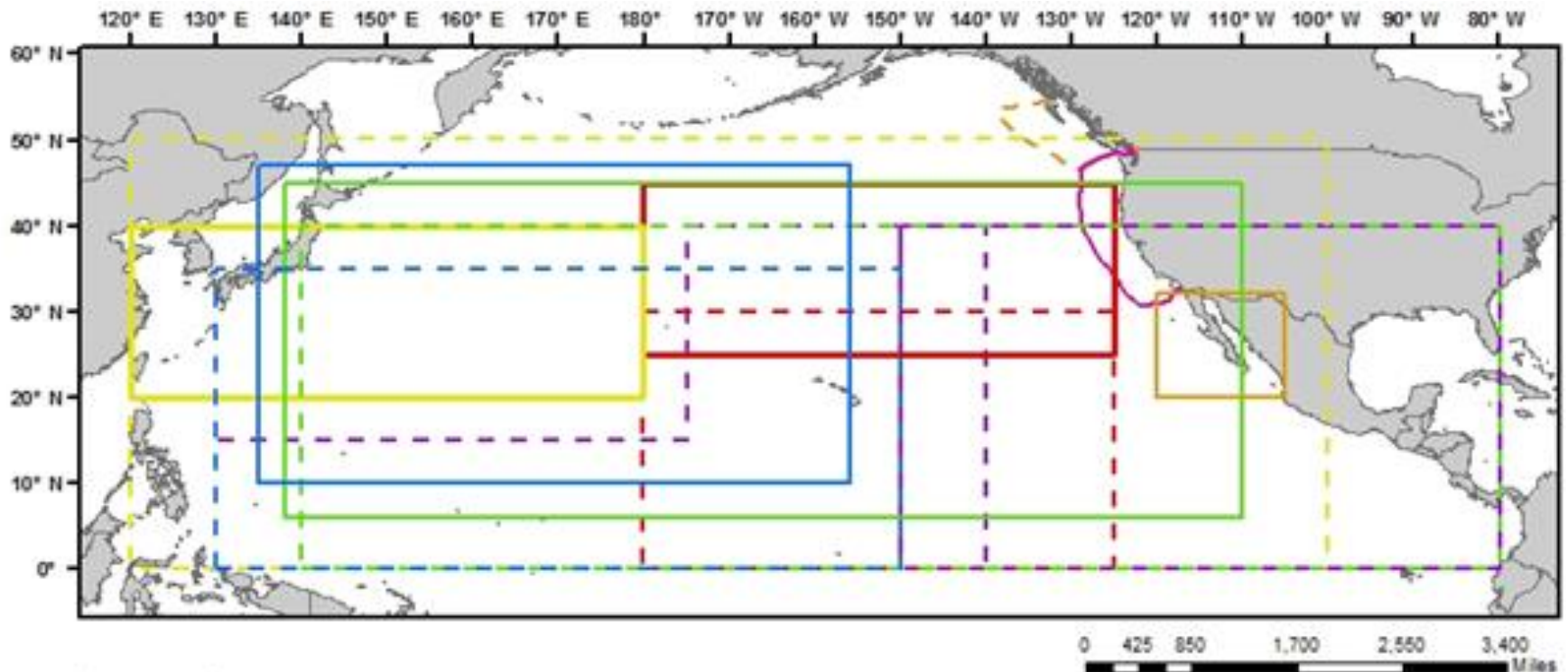


# History of International Shark Fisheries

- Historically driven by the shark fin and liver oil trades
- Key nations in the Pacific have been Japan, Chinese Taipei, Indonesia
- Little data on shark landings exist, but FAO statistics suggest that shark landings in the Pacific has been 100,000-150,000 t since the 1950s
- China and Hong Kong are the major importers



# Many Nations Fishing Pacific-wide



## Legend

- |                                  |                                     |                               |
|----------------------------------|-------------------------------------|-------------------------------|
| — Japan Kinkai shallow longline  | - - - Taiwan distant-water longline | - - - SPC non-member longline |
| - - - Japan Kinkai deep longline | — Mexico longline/driftnet          | — IATTC member purse seine    |
| — Japan Enyo shallow longline    | — Hawaii shallow longline           | - - - Canada trawl/longline   |
| - - - Japan Enyo deep longline   | - - - Hawaii deep longline          |                               |
| — Taiwan small-scale longline    | — USA drift gillnet                 |                               |



# History of U.S. West Coast HMS Shark Fisheries

- Basking shark – harpoon fishery off central CA during the 1930s-1950s; hundreds of sharks likely landed
- Thresher shark – targeted fishery with drift gillnet gear began in 1977; landings peaked ~1800 t in 1982; current catch less than 1/8 of peak
- Recreational – shark angling for shortfin makos and thresher sharks increased in popularity in CA in the 1980s; several tournaments are held each year; recreational catch data are poor but catch estimates are 500-1000 each of shortfin mako and common thresher sharks
- Longline – shortfin mako and blue sharks targeted in SCB during brief experimental fisheries in the 1980s and 1990s; sharks are caught incidentally in a CA based longline fishery targeting tunas and formerly swordfish with a peak of 31 vessels participating in 1994



# CA-Based High-seas Longline Fishery

- Target tuna (deep-set) and swordfish (shallow-set)
- Prior to 1991, fewer than 3 vessels participated
- Peak of 31 vessels in 1994: 497 mt swordfish and ~55 mt tuna landed
- Sharks make up 3-11% of total landed catch (blue sharks not retained)
- Shallow-set fishery closed in 2004
- Most vessels are now based in Hawaii
- Currently there is only one CA-based longliner



# Shark Catch by Species – CA Longline

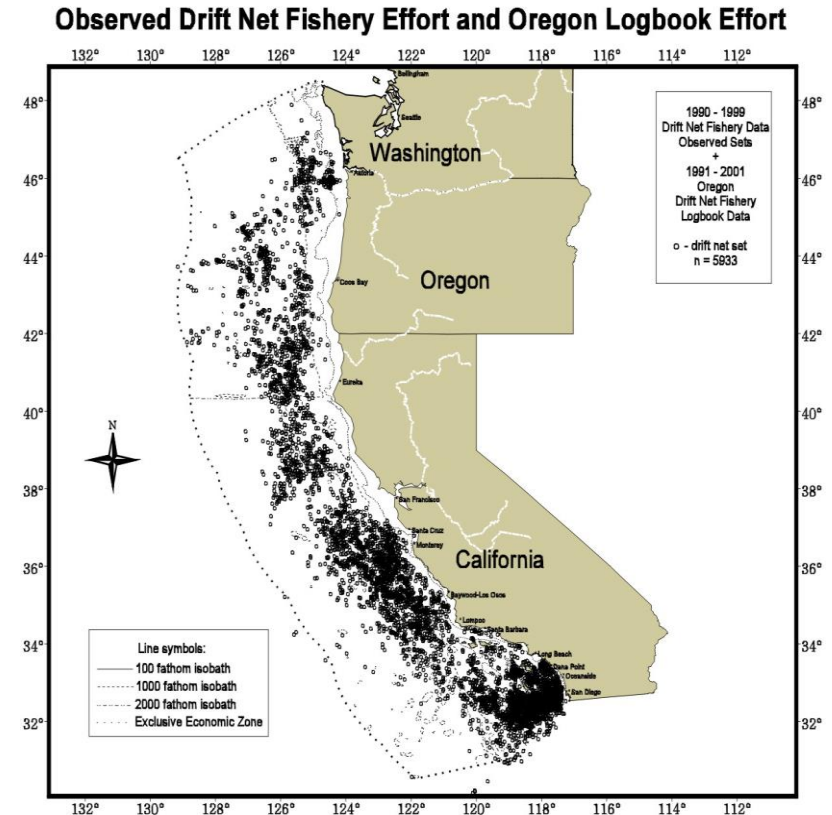
(example of provisional logbook data)

CA LL Logbooks 1991-2003	
Shark, Blue ("blue dog")	97376
Shark, Mako	2711
Shark, Other	1150
Shark, Thresher, common	383
Shark, Mako, Longfin	45
Thresher, Bigeye	14
Shark, White	2
Shark, Porbeagle	1
Grand Total	101682



# CA / OR Drift Gillnet Fishery

- 1977 began as a fishery targeting thresher sharks
- Thresher catch rates began to decline within 3-4 years
- Early 1980s target switched to more profitable swordfish
- Up to ~240 vessels at peak
- Currently <40 active vessels annually





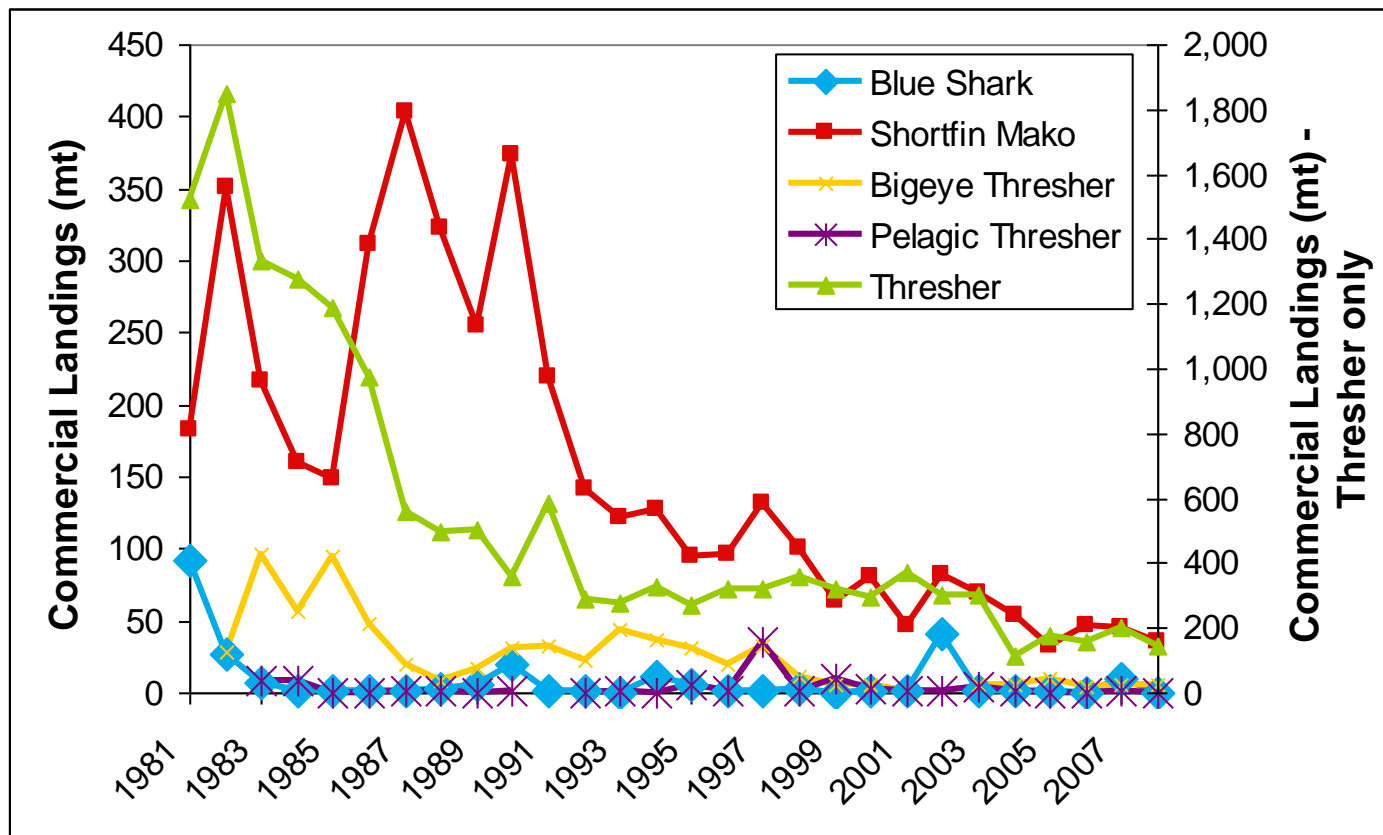
# Shark Catch by Species – Drift Gillnet

(example of provisional observer data)

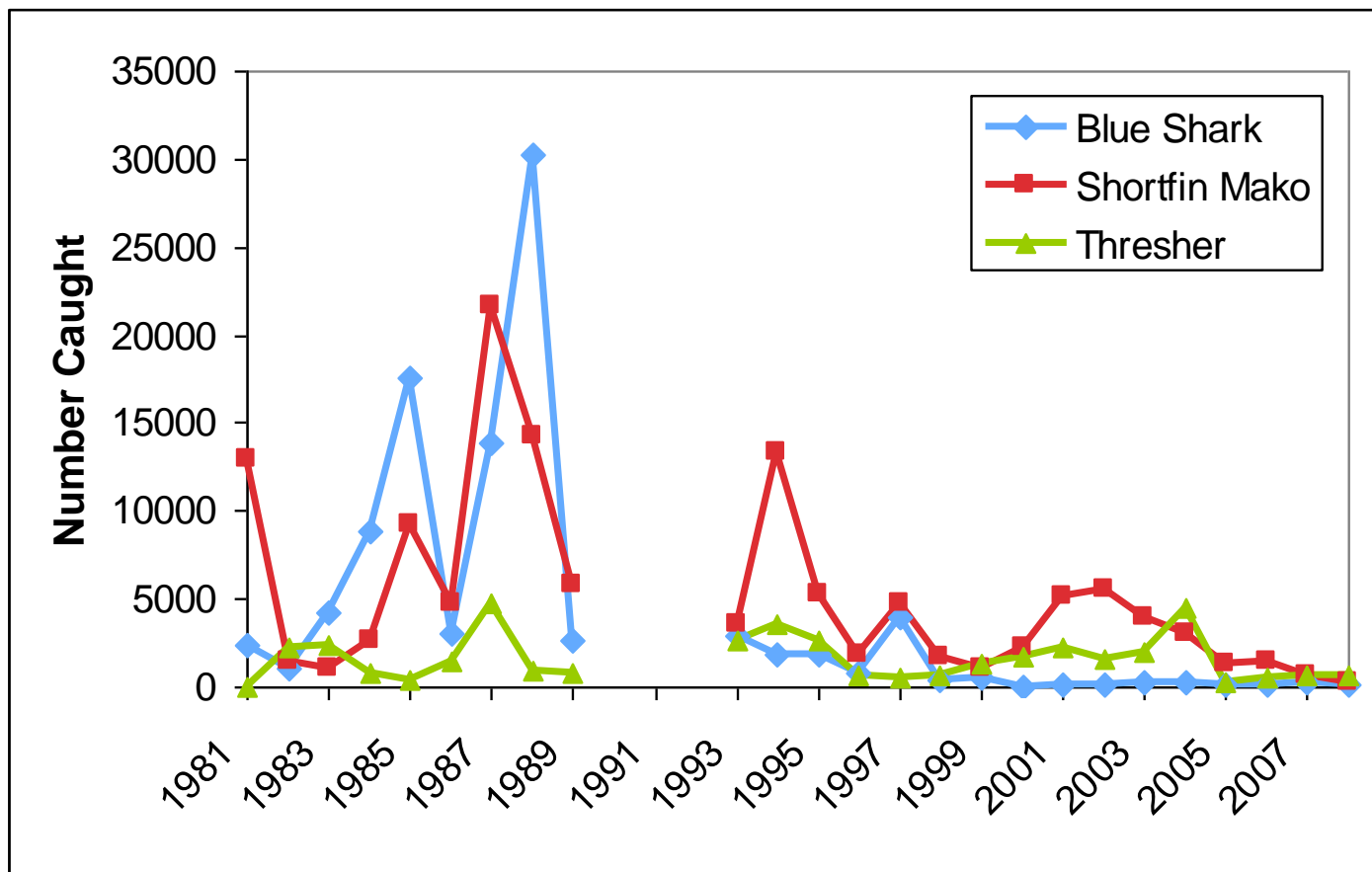
CA/OR Drift Gillnet Obs. Data 1990-2009	
Shark, Blue	21985
Shark, Shortfin Mako	7391
Shark, Common Thresher	6127
Shark, Bigeye Thresher	636
Shark, Salmon	111
Shark, Pelagic Thresher	78
Shark, Smooth Hammerhead	47
Shark, Soupfin	6
Shark, Prickly	6
Shark, Longfin Mako	5
Shark, Unidentified	4
Shark, Spiney Dogfish	4
Shark, Pacific Angel	4
Shark, White	3
Shark, Basking	3
Shark, Other	9
Grand Total	36419



# U.S. West Coast Commercial Shark Landings



# U.S. West Coast Recreational Shark Fishery Catch



## Strengths

- U.S. has collected species-specific shark data for decades

## Challenges

- Fishery data from other regions for sharks are scant

## Strategies

- Foster international collaboration and capacity building

A large shark is captured in the middle of breaching the ocean's surface. The shark's body is arched, with its head and front fins visible above the water, while its tail is still submerged, creating a large, white splash. The water is a deep blue, and the scene is dynamic with many white droplets and bubbles in the air and on the water's surface.

# Questions?



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